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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,837	08/03/2001	Ruediger Butterbach	H 3691PCT/US	7485

423 7590 05/27/2003

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EXAMINER

GOFF II, JOHN L

ART UNIT	PAPER NUMBER
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1733

12

DATE MAILED: 05/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

~~00774,887~~ 09/150,707

Applicant(s)

HESCH, ROLF

Examiner

John L. Goff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 8-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/150,707.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to applicants response received on 3/25/03. The declaration filed on 3/24/03 under 37 CFR 1.131 has been considered but is ineffective to overcome the Guan et al. reference as all of the inventors have not signed the declaration (See MPEP 715.04), and thus, the rejection over Guan et al. is maintained. In the event the deficiencies in the declaration are overcome a new rejection over Kobayashi et al. is set forth below.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 9-18, 22-24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guan et al. (U.S. Patent 6,165,299) in view of Kauffman et al. (U.S. Patent 5,001,179) and Nuttens et al. (U.S. Patent 5,037,874).

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Guan et al. disclose that it is known to form a DVD via a process wherein two disc-shaped plastic substrates (or halves) are adhesively bonded together utilizing an (e.g. hot melt) adhesive interposed therebetween. The DVD may also be provided with information and (metallic) reflective layers therein. (Figs. 1-2, 4 and 7, Abstract, column 1 lines 26-28, column 2 lines 38-44, column 3 lines 43-49, 54-57 and 66-67, column 4 lines 26-29, column 7 lines 7-16 and N.B. lines 14-16).

Kauffman et al. disclose a hot melt adhesive composition (for bonding plastic substrates to like or different material substrates) composed of a thermoplastic (e.g. S-B-S block copolymer) elastomer, a hydrocarbon (e.g. styrene, vinyl toluene, pentadiene etc.) resin, a (pure monomer derived) polyolefin resin and an e.g. wax (e.g. low M.W. polyethylene) diluent, along with other optional additives e.g. stabilizers etc. (Abstract, column 1 lines 9-15, column 2 line 10 thru column 3 line 15, column 3 lines 27-28).

Nuttens et al. disclose that carbonyl (group) containing polyethylene waxes are known to be employed as a superior or improved wax component in hot melt adhesive compositions. (Abstract, column 1 lines 14-19, N.B. column 2 lines 28-30 and also lines 67-68, column 3 lines 1-3 and 54-68, column 4 lines 1-13). It would have been obvious to one of ordinary skill in the this art to employ the (a) adhesive composition of Kauffman et al. in the bonding process of Guan et al. in place of the corresponding, analogous adhesive material employed therein, mere substitution of one known hot melt adhesive (for plastic and other substrate materials) for another being involved, the primary patentees apparently not limiting themselves to the hot melt adhesive they may employ; and (b) superior and improved functionalized (i.e. CO group containing) polyethylene wax of Nuttens et al. (whose teaching is seen to be consistent with

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applicants' specification at page 8 lines 2-7) for its documented, beneficial function and result (viz. improved compatibility) in the hot melt adhesive composition of Kauffman et al. (who also provides for the use and presence of an (unmodified) polyethylene wax component) for in the bonding process of Guan et al.

5. Claims 19-21 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guan et al. in view of Kauffman et al., Nuttens et al. and the PCT document to Butterbach et al. (a different) al. (cited and supplied by applicants, and having an effective date of 17 September 1998).

Butterbach et al. disclose similar to Guan et al., and further that it is known to provide DVD's with both a protective anti-corrosion layer and a printed (e.g. graphics) layer (page 1 line 25 thru page 2 line 15 of the translation of this reference also provided), such that it would have been obvious to one of ordinary skill in this art to incorporate such known additional layers in/into the DVD's of Guan et al. (as further modified by the remaining secondary references.)

6. Claims 9-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (U.S. Patent 5,703,868) in view of Kauffman et al. and Nuttens et al.

Kobayashi et al. are directed to producing an optical disc such as a DVD. Kobayashi et al. teach providing a first and second substrate, applying an information layer to at least the first substrate, applying a reflection layer to at least the first substrate, applying a protection (i.e. corrosion resistant) layer to at least the first substrate, applying a printed layer to the second substrate, applying an adhesive layer to at least the first substrate, and bonding the first and second substrates together to form a DVD. Kobayashi et al. teach the adhesive layer may be formed of a hot melt adhesive (Figures 1-4 and 6 and Column 1, lines 8-13 and 27-49 and

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Column 4, lines 50-67 and Column 5, lines 1-5 and 16-26 and Column 6, lines 34-39 and 53-67 and Column 7, lines 1-3 and 13-22 and Column 8, lines 45-65 and Column 9, lines 5-16 and 34-42 and Column 11, lines 20-59 and Column 13, lines 11-21). Kobayashi et al. are silent as to using a hot melt adhesive with the claimed composition. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the hot melt adhesive taught by Kobayashi et al. a hot melt adhesive having the claimed composition as suggested by Kauffman et al. to form a DVD with a recyclable adhesive layer.

Kauffman et al. disclose a hot melt adhesive composition (for bonding plastic substrates to like or different material substrates) composed of a thermoplastic (e.g. S-B-S block copolymer) elastomer, a hydrocarbon (e.g. styrene, vinyl toluene, pentadiene etc.) resin, a (pure monomer derived) polyolefin resin and an e.g. wax (e.g. low M.W. polyethylene) diluent, along with other optional additives e.g. stabilizers etc. As to the specific composition Kauffman et al. teach the hot melt adhesive comprises 20-40% thermoplastic elastomer, 30-80% hydrocarbon resin, 0-10% polyolefin resin, and 0-40% wax diluent. However, one of ordinary skill in the art at the time the invention was made would have readily appreciated that the relative amounts of each component would depend upon the end use application of the hot melt adhesive and determining the relative amounts would not require anything other ordinary skill and routine experimentation. (Column 1, lines 9-15 and 44-48 and Column 2, lines 1-6 and 10 thru column 3, line 15, 25-28, and 35-56).

It is noted Kobayashi et al. as modified by Kauffman et al. are silent as to the wax component bearing functional groups. However, Nuttens et al. disclose that carbonyl (group) containing polyethylene waxes are known to be employed as a superior or improved wax

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component in hot melt adhesive compositions, and one of ordinary skill in the art at the time the invention was made would have readily appreciated including in the wax component taught by Kobayashi et al. as modified by Kauffman et al. functional groups as suggested by Nuttens et al. to produce improved hot melt adhesives. (Column 1, lines 14-19 and Column 2, lines 28-30 and 67-68 and Column 3, lines 1-3 and 54-68 and Column 4, lines 1-13).

Regarding claims 12-14, 16, 22, 26, and 27, as to the molecular weight of the polyolefin component and molecular weight and saponification value of the wax component, the materials taught by Kobayashi et al. as modified by Kauffman et al. and Nuttens et al. are the same as those currently claimed, and absent any unexpected results, one of ordinary skill in the art at the time the invention was made would have readily appreciated using components having molecular weights and saponification values falling within the broad claimed range of values.

Response to Arguments

7. Applicant's arguments filed 3/24/03 have been fully considered but they are not persuasive. See paragraph 1.

Conclusion

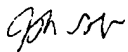
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **703-305-7481**. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



John L. Goff
May 21, 2003


Michael W. Ball

Supervisory Patent Examiner
Technology Center 1700